

#9/a

SEQUENCE LISTING

(1) GENERAL INFORMATION:

- (i) APPLICANT: Sims, Peter J.
- (ii) TITLE OF INVENTION: Compositions and Methods to Inhibit the C5b-9 Complex of Complement
- (iii) NUMBER OF SEQUENCES: 18
- (iv) CORRESPONDENCE ADDRESS:
 - (A) ADDRESSEE: Patrea L. Pabst
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 - (C) CITY: Atlanta
 - (D) STATE: GA
 - (E) COUNTRY: USA
 - (F) ZIP: 30309-3450
- (v) COMPUTER READABLE FORM:
 - (A) MEDIUM TYPE: Floppy disk
 - (B) COMPUTER: IBM PC compatible
 - (C) OPERATING SYSTEM: PC-DOS/MS-DOS
 - (D) SOFTWARE: PatentIn Release #1.0, Version #1.25
- (vi) CURRENT APPLICATION DATA:
 - (A) APPLICATION NUMBER: US
 - (B) FILING DATE: 03-FEB-1998
 - (C) CLASSIFICATION:
- (viii) ATTORNEY/AGENT INFORMATION:
 - (A) NAME: Pabst, Patrea L.
 - (B) REGISTRATION NUMBER: 31,284
 - (C) REFERENCE/DOCKET NUMBER: OMRF 170
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(2) INFORMATION FOR SEQ ID NO:1:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 127 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- (iii) HYPOTHETICAL: NO
- (vi) ORIGINAL SOURCE:
 - (A) ORGANISM: Human
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:

Gly Ile Gln Gly Gly Ser Val Leu Phe Gly Leu Leu Leu Val Leu Ala
1 5 10 15
Val Phe Cys His Ser Gly His Ser Leu Gln Cys Tyr Asn Cys Pro Asn
20 25 30
Pro Thr Ala Asp Cys Lys Thr Ala Val Asn Cys Ser Ser Asp Phe Asp
35 40 45
Ala Cys Leu Ile Thr Lys Ala Gly Leu Gln Val Tyr Asn Lys Cys Trp
50 55 60
Lys Phe Glu His Cys Asn Phe Asn Asp Val Thr Thr Arg Leu Arg Glu
65 70 75 80
Asn Glu Leu Thr Tyr Tyr Cys Cys Lys Lys Asp Leu Cys Asn Phe Asn
85 90 95

Glu Gln Leu Glu Asn Gly Gly Thr Ser Leu Ser Glu Lys Thr Val Leu
100 105 110

Leu Leu Val Thr Pro Phe Leu Ala Ala Ala Trp Ser Leu His Pro
115 120 125

(2) INFORMATION FOR SEQ ID NO:2:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 124 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: peptide
(iii) HYPOTHETICAL: NO
(vi) ORIGINAL SOURCE:
(A) ORGANISM: Rabbit
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2:

Met Thr Ser Arg Gly Val His Leu Leu Leu Arg Leu Leu Phe Leu Leu
1 5 10 15

Ala Val Phe Tyr Ser Ser Asp Ser Ser Leu Met Cys Tyr His Cys Leu
20 25 30

Leu Pro Ser Pro Asn Cys Ser Thr Val Thr Asn Cys Thr Pro Asn His
35 40 45

Asp Ala Cys Leu Thr Ala Val Ser Gly Pro Arg Val Tyr Arg Gln Cys
50 55 60

Trp Arg Tyr Glu Asp Cys Asn Phe Glu Phe Ile Ser Asn Arg Leu Glu
65 70 75 80

Glu Asn Ser Leu Lys Tyr Asn Cys Cys Arg Lys Asp Leu Cys Asn Gly
85 90 95

Pro Glu Asp Asp Gly Thr Ala Leu Thr Gly Arg Thr Val Leu Leu Val
100 105 110

Ala Pro Leu Leu Ala Ala Ala Arg Asn Leu Cys Leu
115 120

(2) INFORMATION FOR SEQ ID NO:3:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 77 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: peptide
(iii) HYPOTHETICAL: NO
(vi) ORIGINAL SOURCE:
(A) ORGANISM: Human
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3:

Leu Gln Cys Tyr Asn Cys Pro Asn Pro Thr Ala Asp Cys Lys Thr Ala
1 5 10 15

Val Asn Cys Ser Ser Asp Phe Asp Ala Cys Leu Ile Thr Lys Ala Gly
20 25 30

Leu Gln Val Tyr Asn Lys Cys Trp Lys Phe Glu His Cys Asn Phe Asn
 35 40 45
 Asp Val Thr Thr Arg Leu Arg Glu Asn Glu Leu Thr Tyr Tyr Cys Cys
 50 55 60
 Lys Lys Asp Leu Cys Asn Phe Asn Glu Gln Leu Glu Asn
 65 70 75

(2) INFORMATION FOR SEQ ID NO:4:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 75 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- (iii) HYPOTHETICAL: NO
- (vi) ORIGINAL SOURCE:
 - (A) ORGANISM: Baboon
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:4:

Leu Gln Cys Tyr Asn Cys Pro Asn Pro Thr Thr Asn Cys Lys Thr Ala
 1 5 10 15
 Ile Asn Cys Ser Ser Gly Phe Asp Thr Cys Leu Ile Ala Arg Ala Gly
 20 25 30
 Leu Gln Val Tyr Asn Gln Cys Trp Lys Phe Ala Asn Cys Asn Phe Asn
 35 40 45
 Asp Ile Ser Thr Leu Leu Lys Glu Asn Glu Leu Gln Tyr Phe Cys Cys
 50 55 60
 Lys Glu Asp Leu Cys Asn Glu Gln Leu Glu Asn
 65 70 75

(2) INFORMATION FOR SEQ ID NO:5:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 77 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- (iii) HYPOTHETICAL: NO
- (vi) ORIGINAL SOURCE:
 - (A) ORGANISM: African green monkey
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:5:

Leu Gln Cys Tyr Asn Cys Pro Asn Pro Thr Thr Asp Cys Lys Thr Ala
 1 5 10 15
 Ile Asn Cys Ser Ser Gly Phe Asp Thr Cys Leu Ile Ala Arg Ala Gly
 20 25 30
 Leu Gln Val Tyr Asn Gln Cys Trp Lys Phe Ala Asn Cys Asn Phe Asn
 35 40 45
 Asp Ile Ser Thr Leu Leu Lys Glu Ser Glu Leu Gln Tyr Phe Cys Cys
 50 55 60

Lys Lys Asp Leu Cys Asn Phe Asn Glu Gln Leu Glu Asn
 65 70 75

(2) INFORMATION FOR SEQ ID NO:6:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 77 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- (iii) HYPOTHETICAL: NO
- (vi) ORIGINAL SOURCE:
 - (A) ORGANISM: Owl monkey
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:6:

Leu Gln Cys Tyr Ser Cys Pro Tyr Pro Thr Thr Gln Cys Thr Met Thr
 1 5 10 15

Thr Asn Cys Thr Ser Asn Leu Asp Ser Cys Leu Ile Ala Lys Ala Gly
 20 25 30

Ser Arg Val Tyr Tyr Arg Cys Trp Lys Phe Glu Asp Cys Thr Phe Ser
 35 40 45

Arg Val Ser Asn Gln Leu Ser Glu Asn Glu Leu Lys Tyr Tyr Cys Cys
 50 55 60

Lys Lys Asn Leu Cys Asn Phe Asn Glu Ala Leu Glu Asn
 65 70 75

(2) INFORMATION FOR SEQ ID NO:7:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 77 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- (iii) HYPOTHETICAL: NO
- (vi) ORIGINAL SOURCE:
 - (A) ORGANISM: Marmoset
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:7:

Leu Gln Cys Tyr Ser Cys Pro Tyr Ser Thr Ala Arg Cys Thr Thr Thr
 1 5 10 15

Thr Asn Cys Thr Ser Asn Leu Asp Ser Cys Leu Ile Ala Lys Ala Gly
 20 25 30

Leu Arg Val Tyr Tyr Arg Cys Trp Lys Phe Glu Asp Cys Thr Phe Arg
 35 40 45

Gln Leu Ser Asn Gln Leu Ser Glu Asn Glu Leu Lys Tyr His Cys Cys
 50 55 60

Arg Glu Asn Leu Cys Asn Phe Asn Gly Ile Leu Glu Asn
 65 70 75

(2) INFORMATION FOR SEQ ID NO:8:

- (i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 75 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- (iii) HYPOTHETICAL: NO
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:8:

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Leu Gln Cys Tyr Asn Cys Ser His Ser Thr Met Gln Cys Lys Thr Ser
1          5          10          15
Thr Ser Cys Thr Ser Asn Leu Asp Ser Cys Leu Ile Ala Lys Ala Gly
20          25          30
Ser Gly Val Tyr Asn Lys Cys Trp Lys Phe Asp Asp Cys Ser Phe Lys
35          40          45
Arg Ile Ser Asn Gln Leu Ser Glu Thr Gln Leu Lys Tyr His Cys Cys
50          55          60
Lys Lys Asn Leu Cys Asn Val Asn Lys Gly Ile
65          70          75

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(2) INFORMATION FOR SEQ ID NO:9:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 36 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- (iii) HYPOTHETICAL: NO
- (vi) ORIGINAL SOURCE:
 - (A) ORGANISM: Pig
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:9:

```

Leu Gln Cys Tyr Asn Cys Ile Asn Pro Ala Gly Ser Cys Thr Xaa Xaa
1          5          10          15
Met Asn Cys Ser Tyr Asn Gln Asp Ala Cys Ile Phe Val Xaa Ala Val
20          25          30
Pro Pro Lys Thr
35

```

(2) INFORMATION FOR SEQ ID NO:10:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 27 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- (iii) HYPOTHETICAL: NO
- (vi) ORIGINAL SOURCE:
 - (A) ORGANISM: Sheep
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:10:

```

Leu Gln Cys Tyr Ser Cys Ile Asn Gln Val Asp Cys Thr Ser Val Ile
1          5          10          15
Asn Cys Thr Xaa Asn Gln Asp Ala Cys Leu Tyr

```

(2) INFORMATION FOR SEQ ID NO:11:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 77 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- ~~(iii) HYPOTHETICAL: NO~~
- (vi) ORIGINAL SOURCE:
 - (A) ORGANISM: Rabbit
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:11:

```

Ser Leu Met Cys Tyr His Cys Leu Leu Pro Ser Pro Asn Cys Ser Thr
1           5           10           15

Val Thr Asn Cys Thr Pro Asn His Asp Ala Cys Leu Thr Ala Val Ser
          20           25           30

Gly Pro Arg Val Tyr Arg Gln Cys Trp Arg Tyr Glu Asp Cys Asn Phe
          35           40           45

Glu Phe Ile Ser Asn Arg Leu Glu Glu Asn Ser Leu Lys Tyr Asn Cys
          50           55           60

Cys Arg Lys Asp Leu Cys Asn Gly Pro Glu Asp Asp Gly
          65           70           75

```

(2) INFORMATION FOR SEQ ID NO:12:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 79 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- (iii) HYPOTHETICAL: NO
- (vi) ORIGINAL SOURCE:
 - (A) ORGANISM: Rat
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:12:

```

Leu Arg Cys Tyr Asn Cys Leu Asp Pro Val Ser Ser Cys Lys Thr Asn
1           5           10           15

Ser Thr Cys Ser Pro Asn Leu Asp Ala Cys Leu Val Ala Val Ser Gly
          20           25           30

Lys Gln Val Tyr Gln Gln Cys Trp Arg Phe Ser Asp Cys Asn Ala Lys
          35           40           45

Phe Ile Leu Ser Arg Leu Glu Ile Ala Asn Val Gln Tyr Arg Cys Cys
          50           55           60

Gln Ala Asp Leu Cys Asn Lys Ser Phe Glu Asp Lys Pro Asn Asn
          65           70           75

```

(2) INFORMATION FOR SEQ ID NO:13:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 74 amino acids

- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- (iii) HYPOTHETICAL: NO
- (vi) ORIGINAL SOURCE:
 - (A) ORGANISM: Mouse
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:13:

Leu	Thr	Cys	Tyr	His	Cys	Phe	Gln	Pro	Val	Val	Ser	Ser	Cys	Asn	Met
1				5					10					15	
Asn	Ser	Thr	Cys	Ser	Pro	Asp	Gln	Asp	Ser	Cys	Leu	Tyr	Ala	Val	Ala
			20					25					30		
Gly	Met	Gln	Val	Tyr	Gln	Arg	Cys	Trp	Lys	Gln	Ser	Asp	Cys	His	Gly
		35					40					45			
Glu	Ile	Ile	Met	Asp	Gln	Leu	Glu	Glu	Thr	Lys	Leu	Lys	Phe	Arg	Cys
	50					55					60				
Cys	Gln	Phe	Asn	Leu	Cys	Asn	Lys	Ser	Asp						
65					70										

(2) INFORMATION FOR SEQ ID NO:14:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 82 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- (iii) HYPOTHETICAL: NO
- (vi) ORIGINAL SOURCE:
 - (A) ORGANISM: Human
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:14:

Leu	Tyr	Glu	Leu	Ile	Tyr	Val	Leu	Asp	Lys	Ala	Ser	Met	Lys	Arg	Lys
1				5					10					15	
Gly	Val	Glu	Leu	Lys	Asp	Ile	Lys	Arg	Cys	Leu	Gly	Tyr	His	Leu	Asp
			20					25					30		
Val	Ser	Leu	Ala	Phe	Ser	Glu	Ile	Ser	Val	Gly	Ala	Glu	Phe	Asn	Lys
		35				40						45			
Asp	Asp	Cys	Val	Lys	Arg	Gly	Glu	Gly	Arg	Ala	Val	Asn	Ile	Thr	Ser
	50					55					60				
Glu	Asn	Leu	Ile	Asp	Asp	Val	Val	Ser	Leu	Ile	Arg	Gly	Gly	Thr	Arg
65				70						75				80	
Lys	Tyr														

(2) INFORMATION FOR SEQ ID NO:15:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 86 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide

- (iii) HYPOTHETICAL: NO
- (vi) ORIGINAL SOURCE:
 - (A) ORGANISM: Rabbit
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:15:

```

Arg Tyr Glu Leu Ile Tyr Val Leu Asp Lys Ala Ser Met Lys Glu Lys
1           5           10           15
Gly Ile Glu Leu Asn Asp Ile Lys Lys Cys Leu Gly Phe Asp Leu Asp
           20           25           30
Leu Ser Leu Asn Ile Pro Gly Lys Ser Ala Gly Leu Ser Leu Thr Gly
           35           40           45
Gln Ala Asn Lys Asn Asn Cys Leu Lys Ser Gly His Gly Asn Ala Val
           50           55           60
Asn Ile Thr Arg Ala Asn Leu Ile Asp Asp Val Ile Ser Leu Ile Arg
65           70           75           80
Gly Gly Thr Gln Lys Phe
           85

```

(2) INFORMATION FOR SEQ ID NO:16:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 40 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- (iii) HYPOTHETICAL: NO
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:16:

```

Ser Leu Met Cys Tyr His Cys Leu Leu Pro Ser Pro Asn Cys Ser Thr
1           5           10           15
Val Thr Asn Cys Thr Pro Asn His Asp Ala Cys Leu Thr Ala Val Ser
           20           25           30
Gly Pro Arg Val Tyr Arg Gln Cys
           35           40

```

(2) INFORMATION FOR SEQ ID NO:17:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 11 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- (iii) HYPOTHETICAL: NO
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:17:

```

Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu Asn
1           5           10

```

(2) INFORMATION FOR SEQ ID NO:18:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 27 amino acids
 - (B) TYPE: amino acid

- (C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: peptide
(iii) HYPOTHETICAL: NO
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:18:

Lys Cys Leu Gly Tyr His Leu Asp Val Ser Leu Ala Phe Ser Glu Ile
1 5 10 15

Ser Val Gly Ala Glu Phe Asn Lys Asp Asp Cys
20 25

